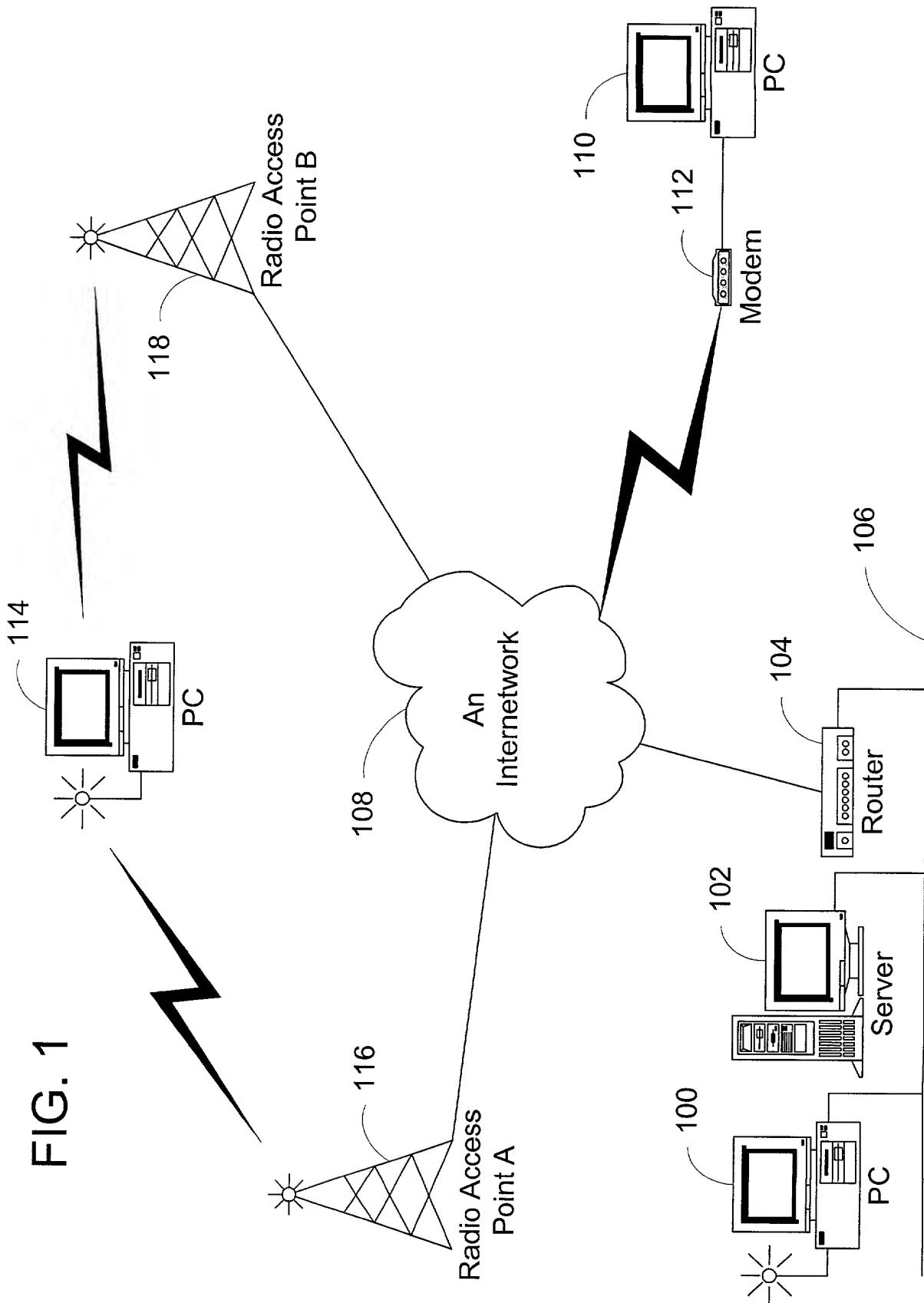


FIG. 1



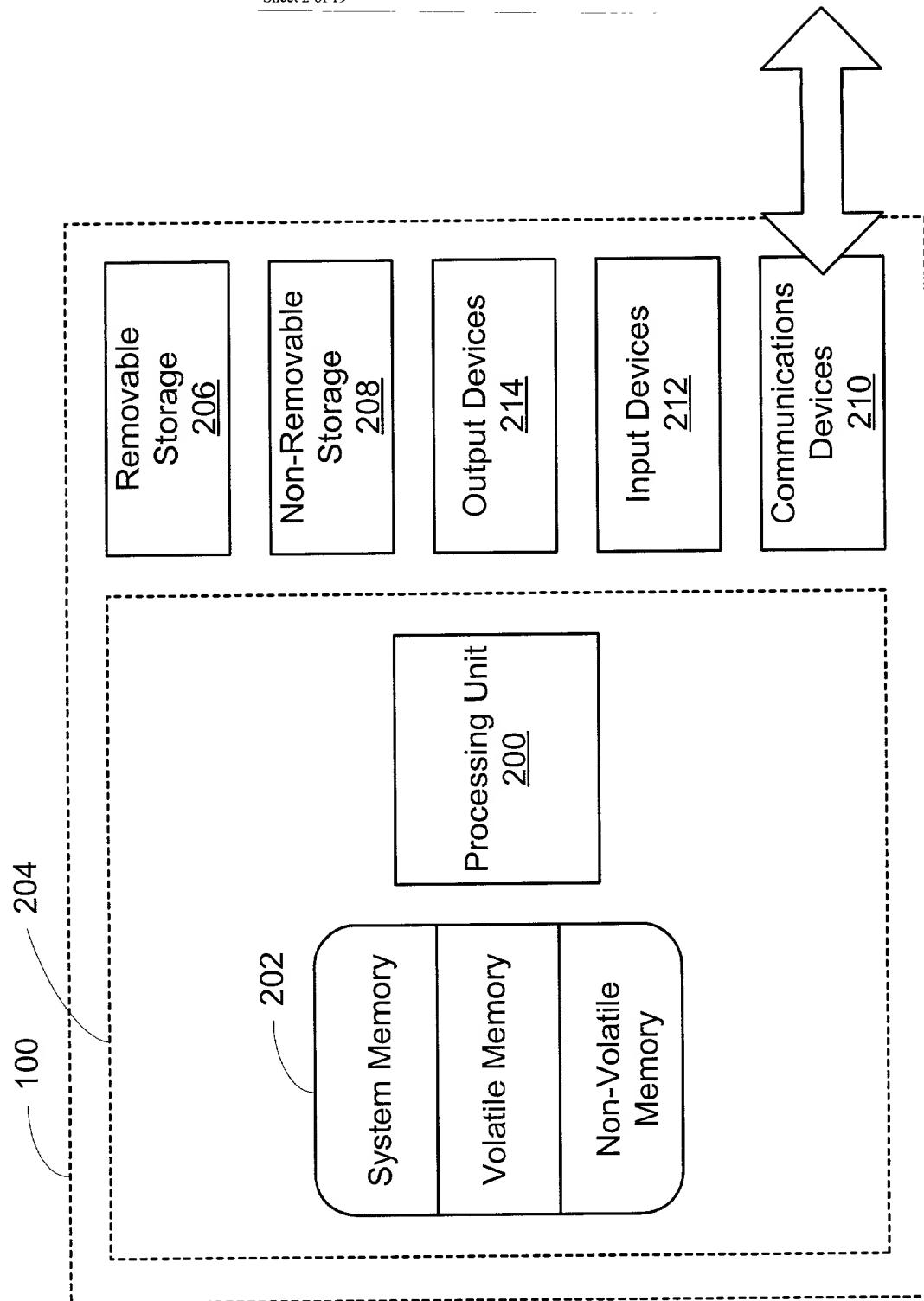
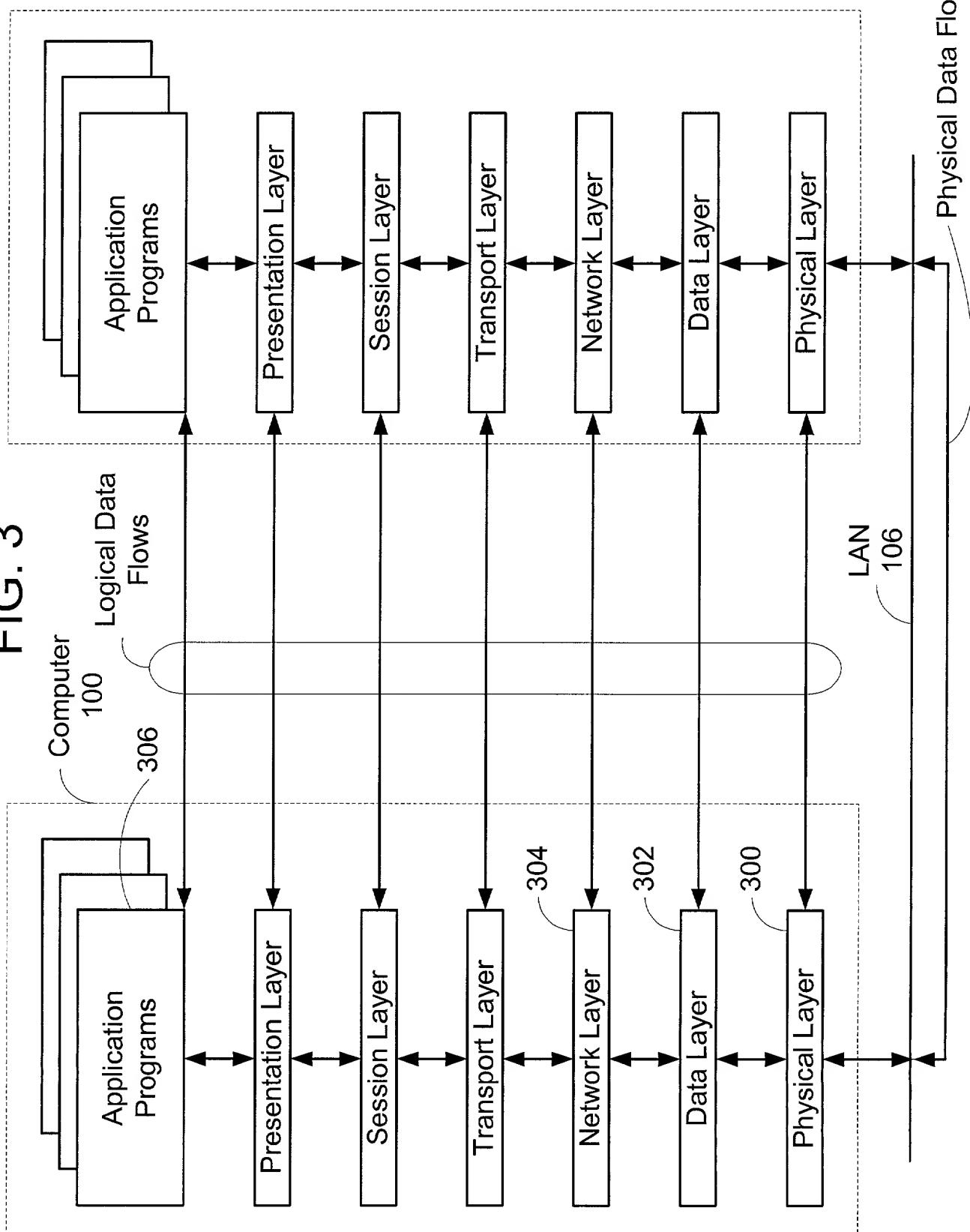
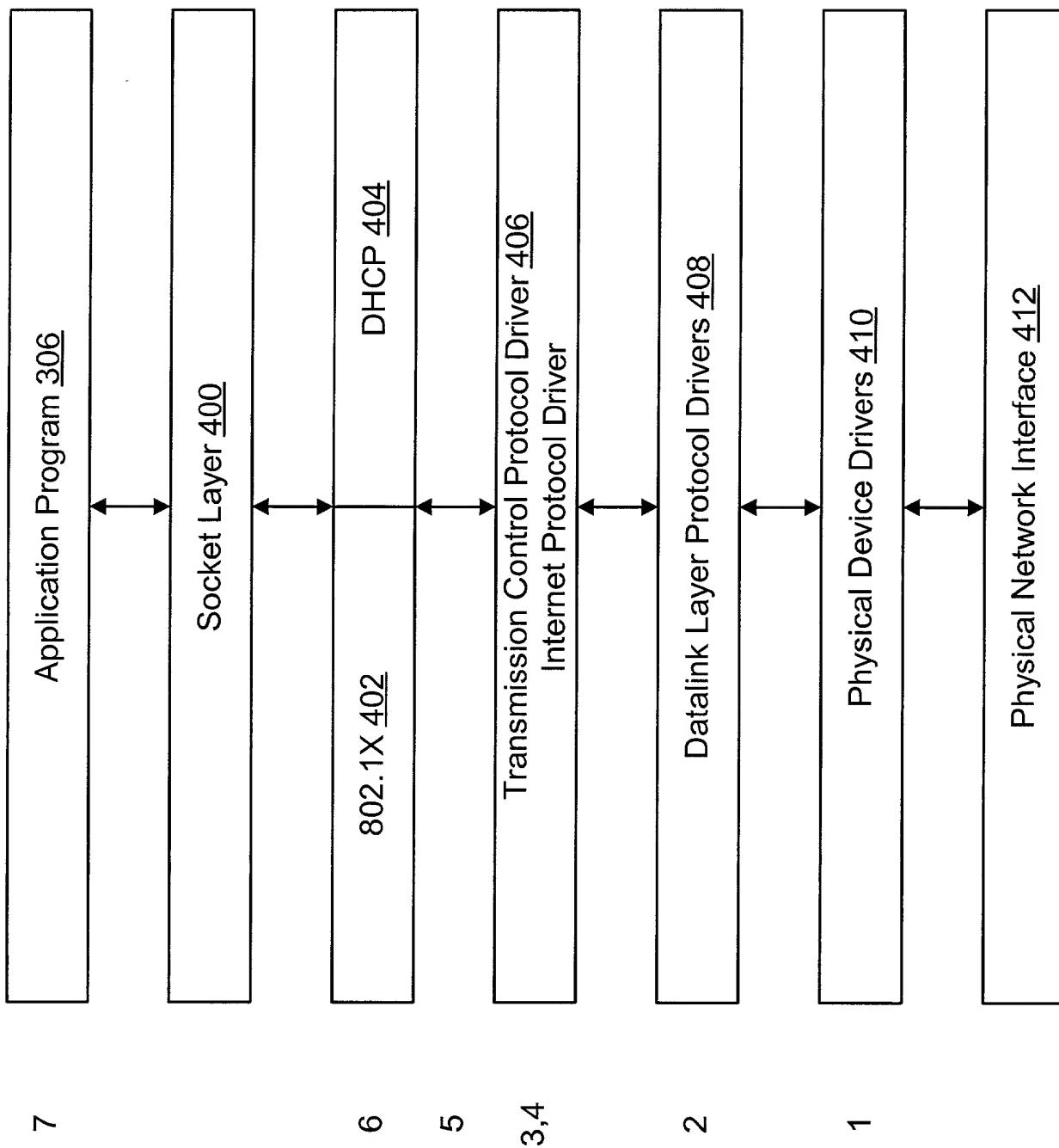


FIG. 2

FIG. 3





Approximately Corresponding ISO/OSI Layer:

FIG. 4A

306 Application Program

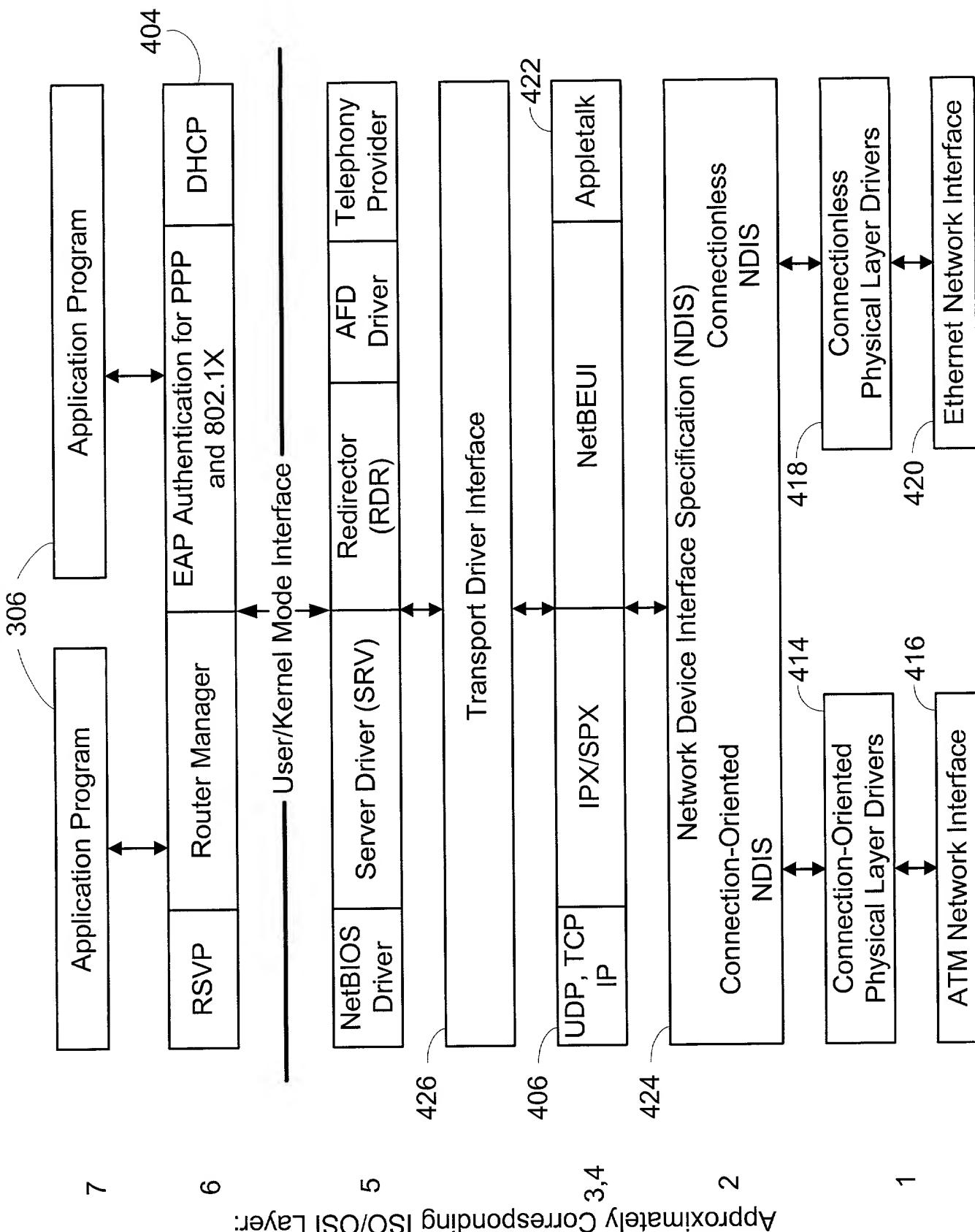
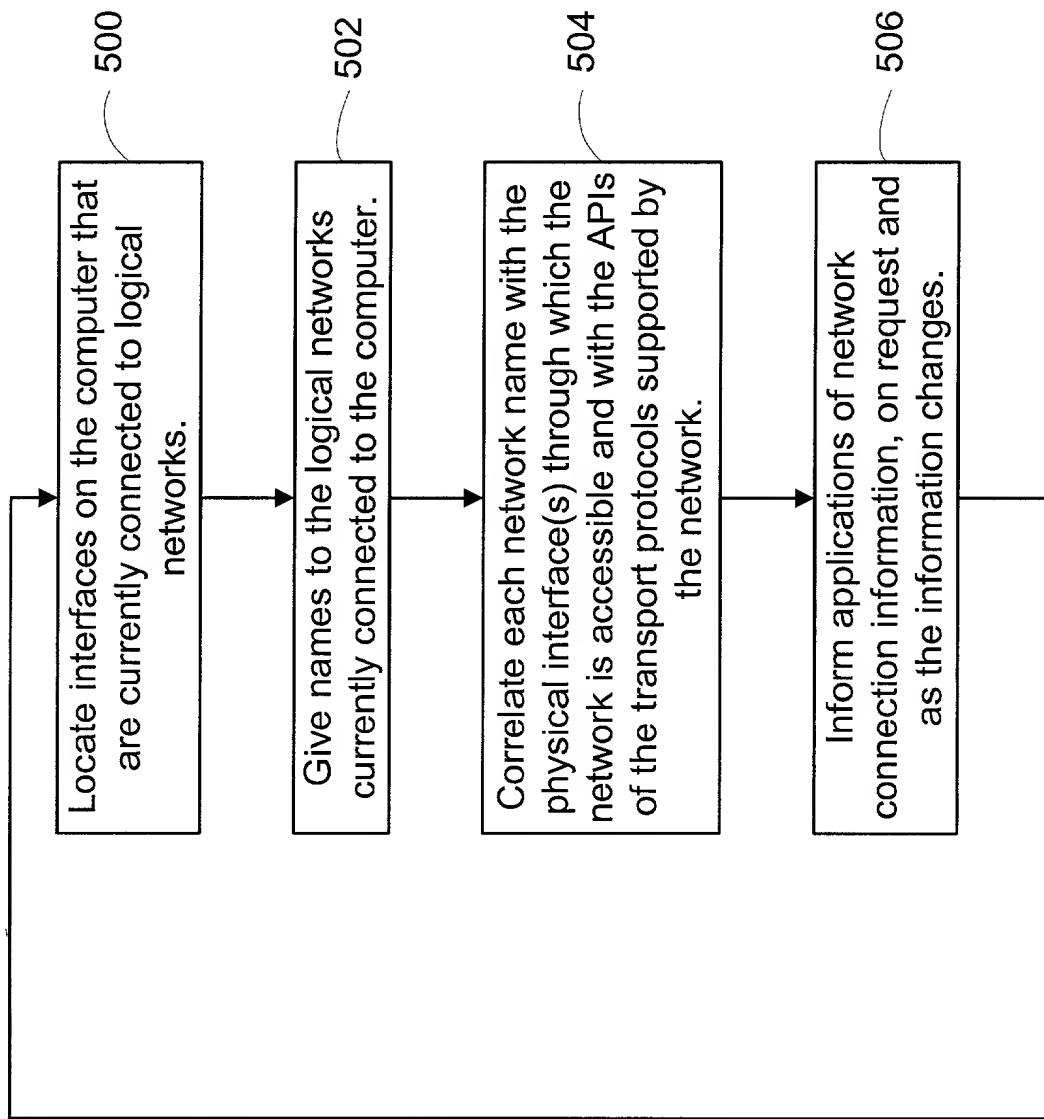


FIG. 4B

FIG. 5



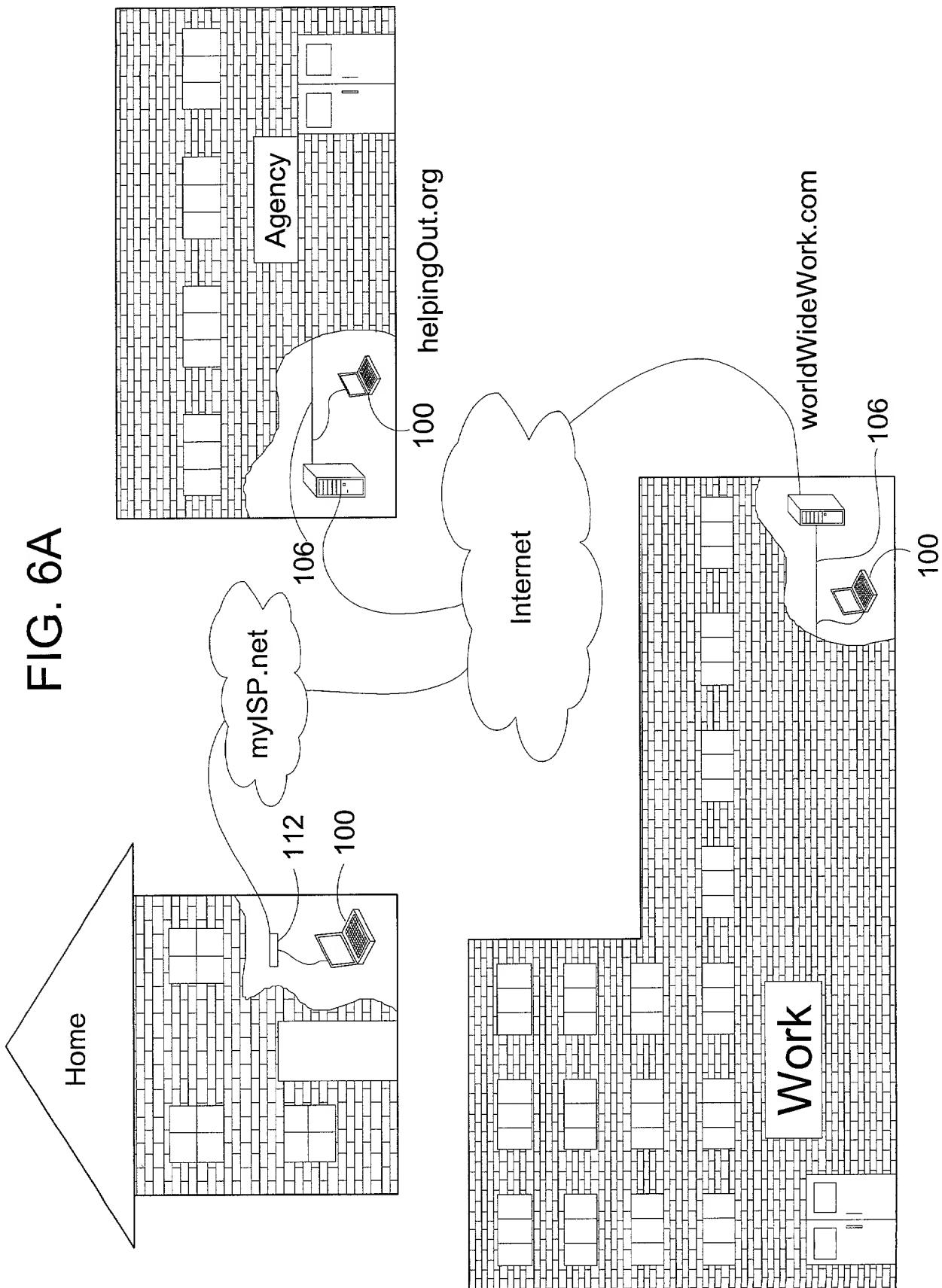


FIG. 6A

FIG. 6B

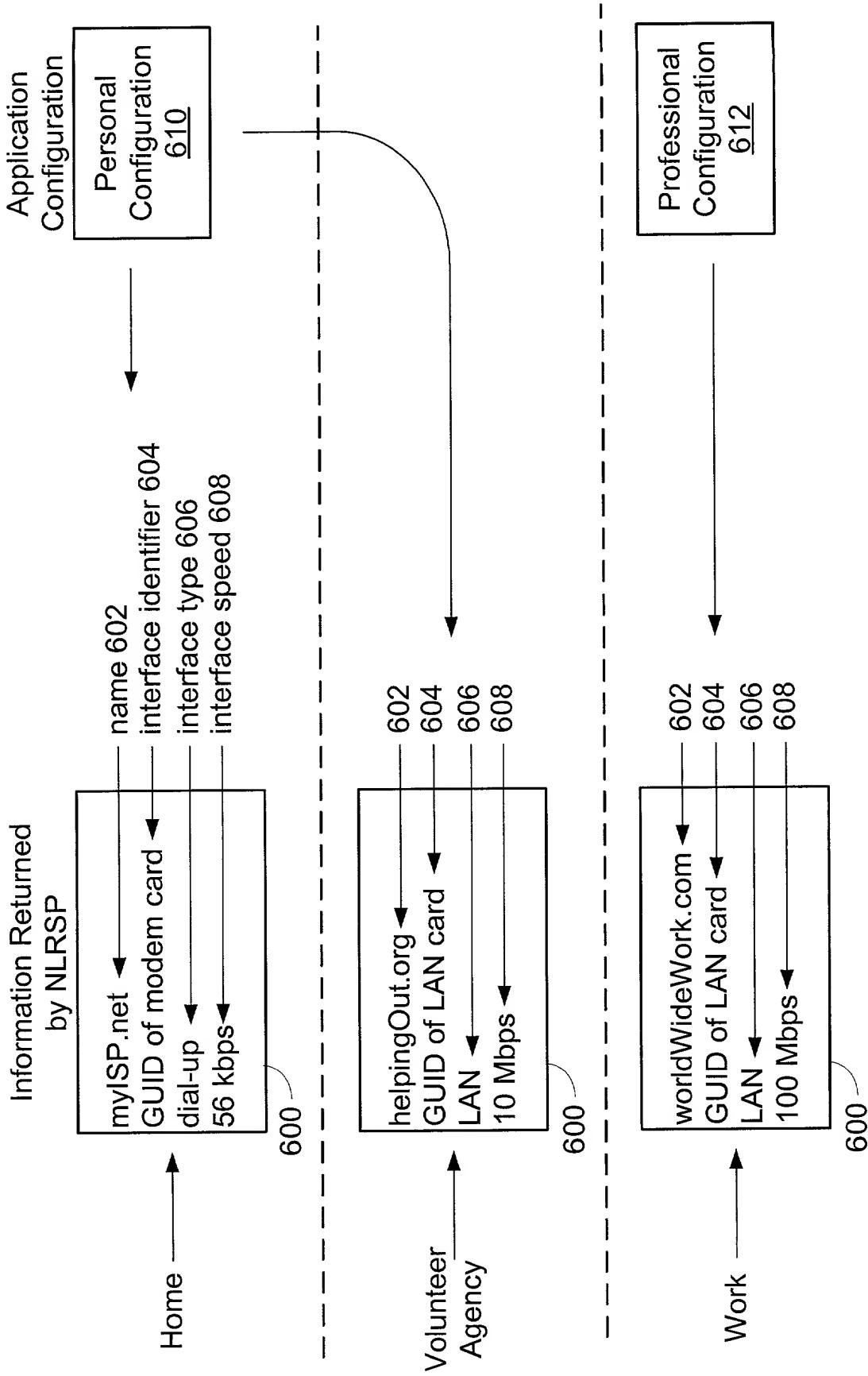


FIG. 7A

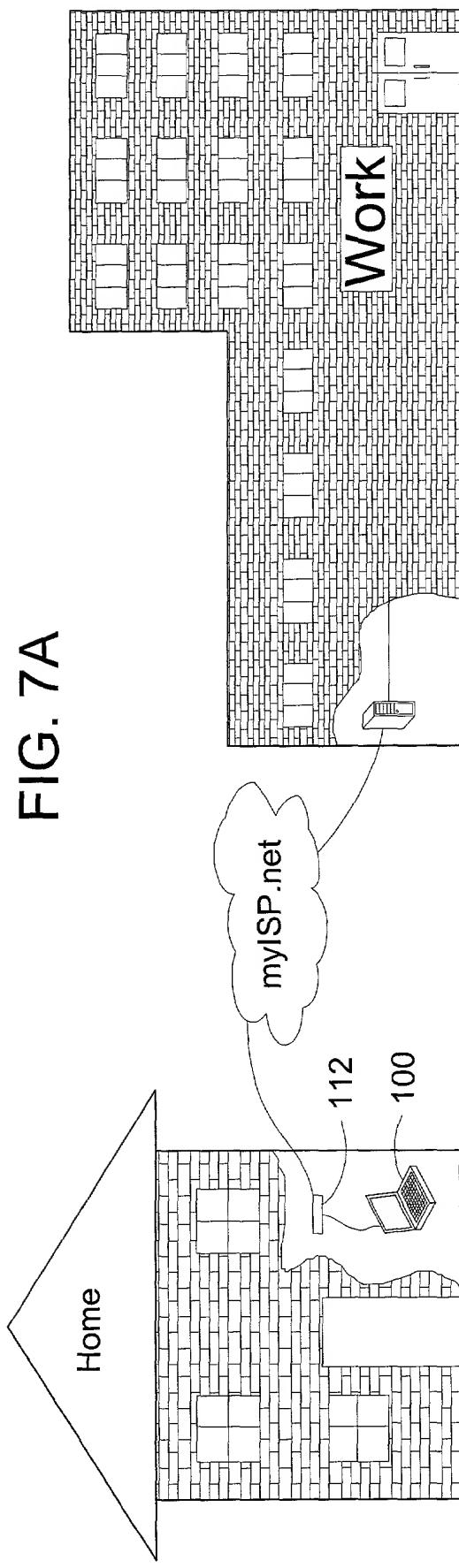


FIG. 7B

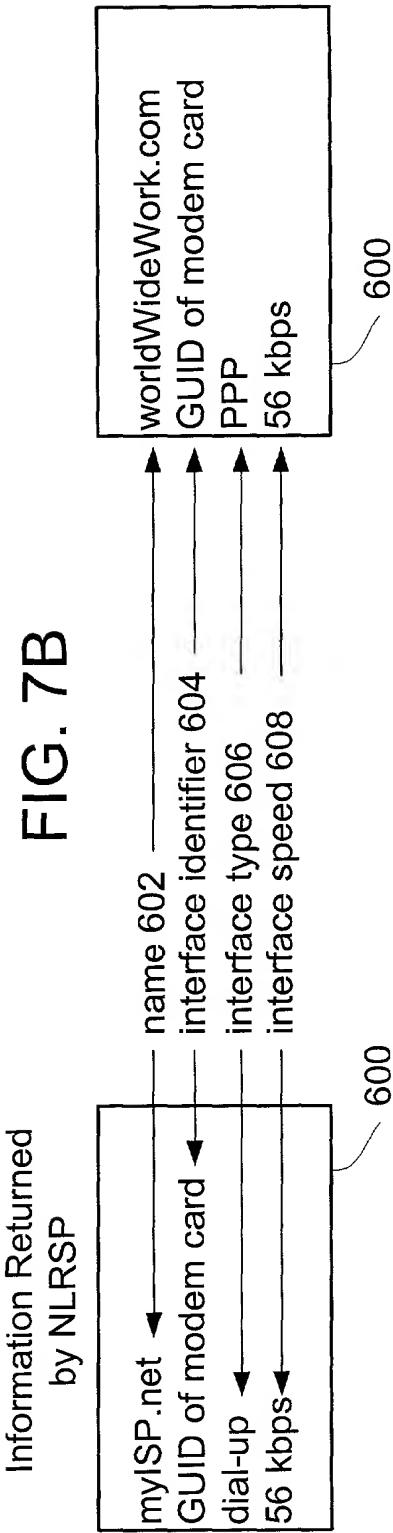


FIG. 8B

Information Returned
by NLRSP

home LAN
GUID of LAN card
LAN
10 Mbps

600

Home

FIG. 8A

FIG. 8C

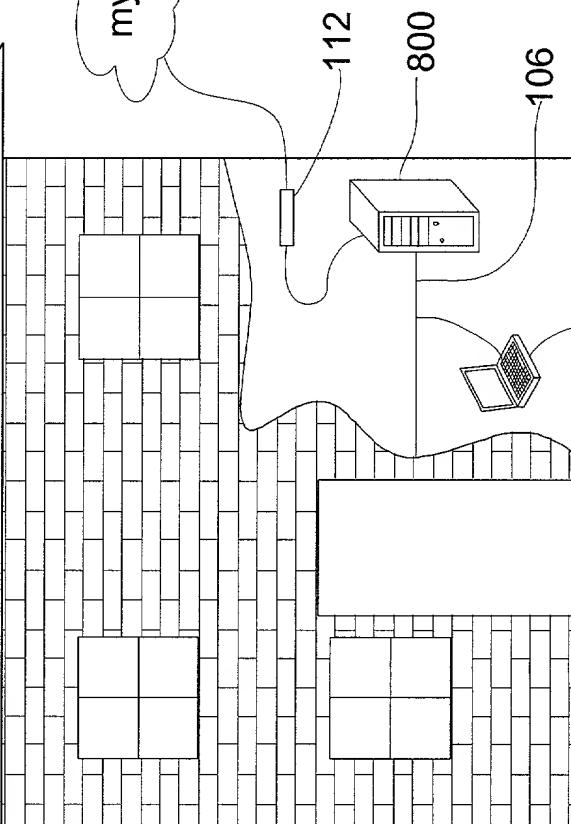
Information Returned
by NLRSP

home LAN
GUID of LAN card
LAN
10 Mbps
myISP.net
dial-up
56 kbps

600

100

112
800
106



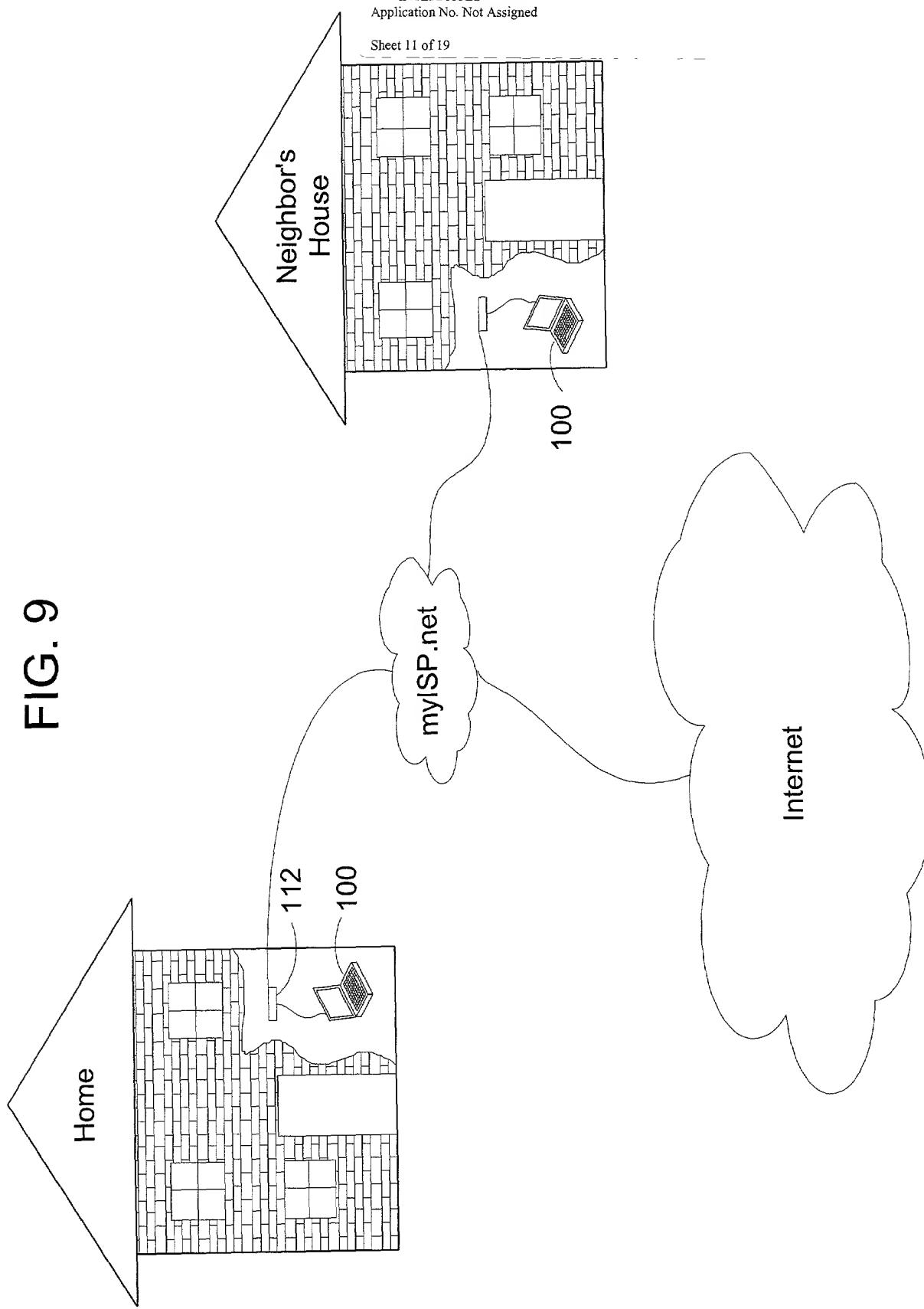


FIG. 9

FIG. 10A
One Day

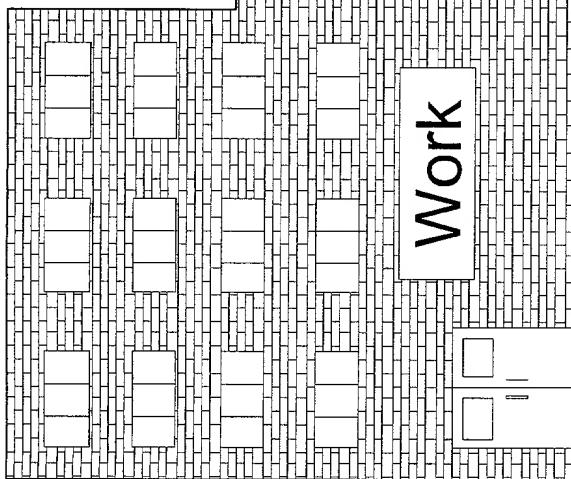


FIG. 10B
The Next Day

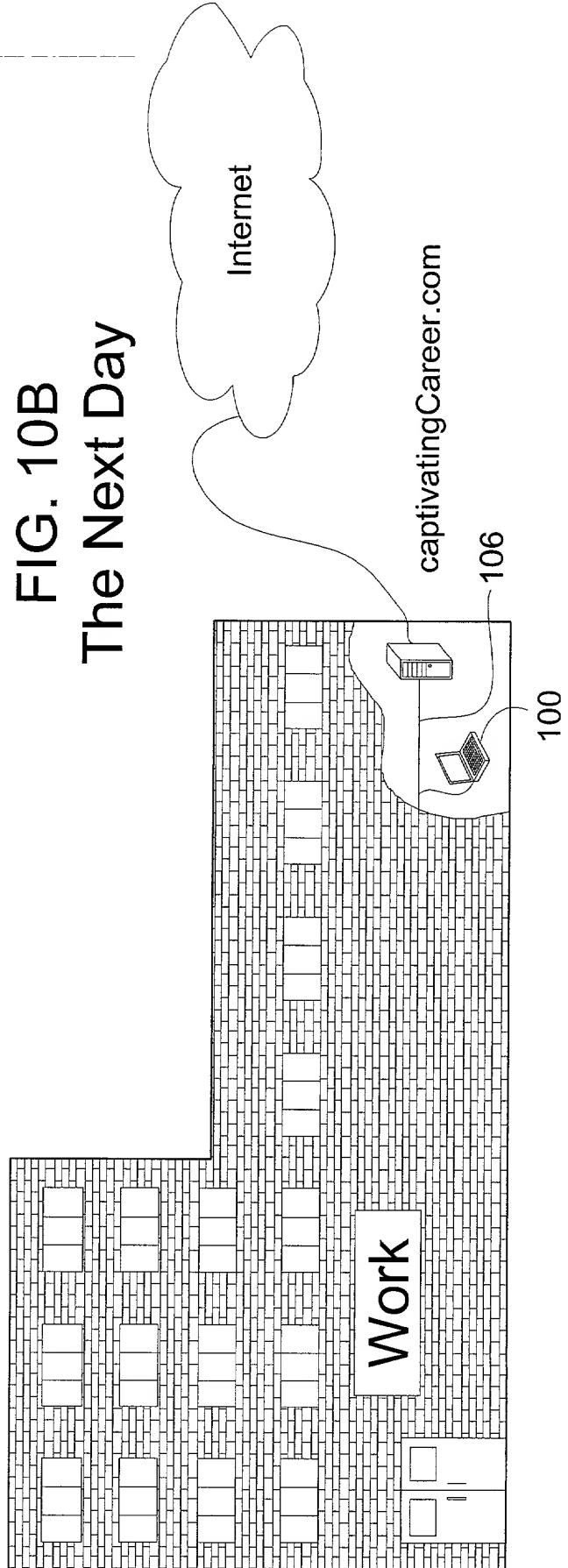
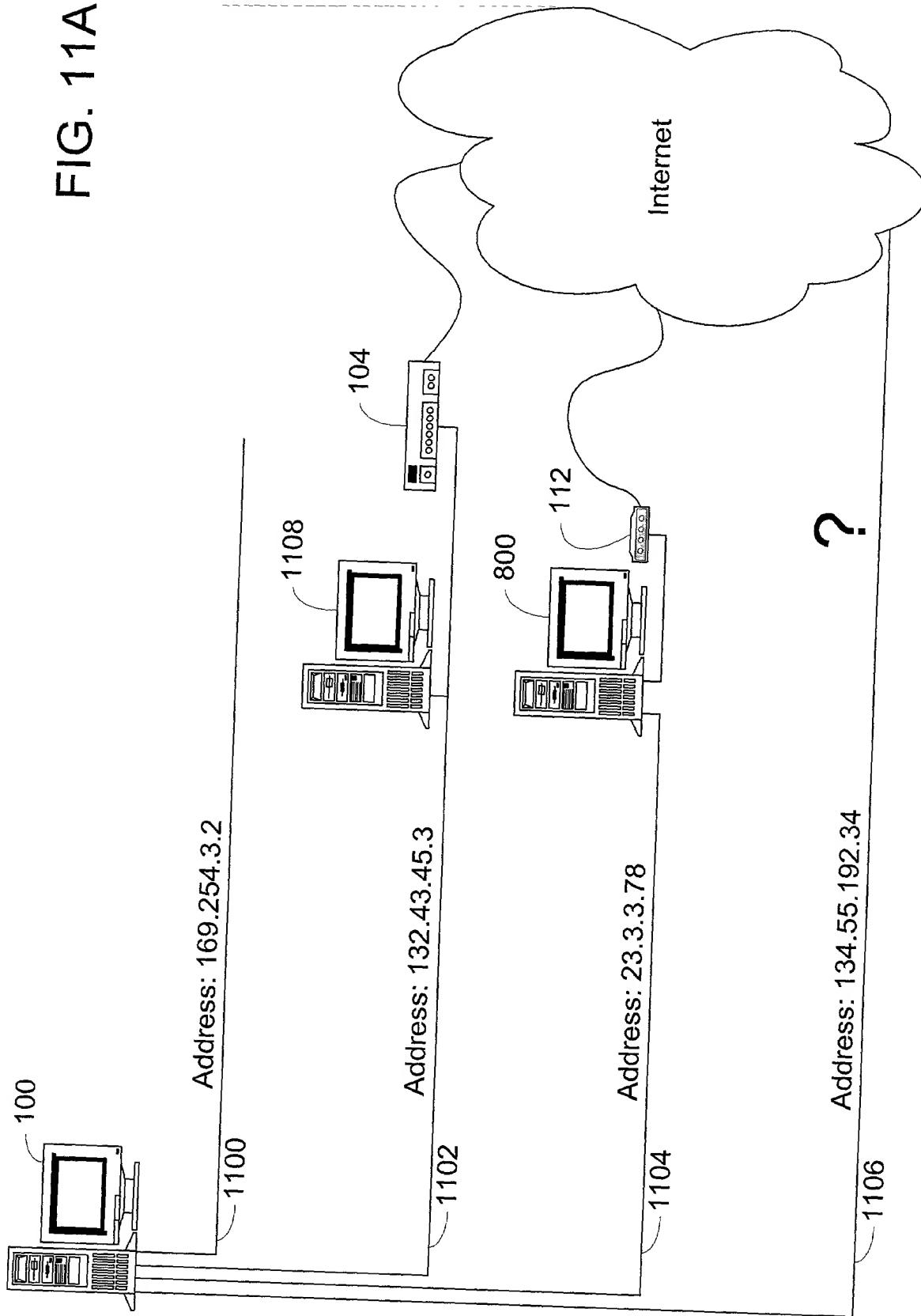


FIG. 11A



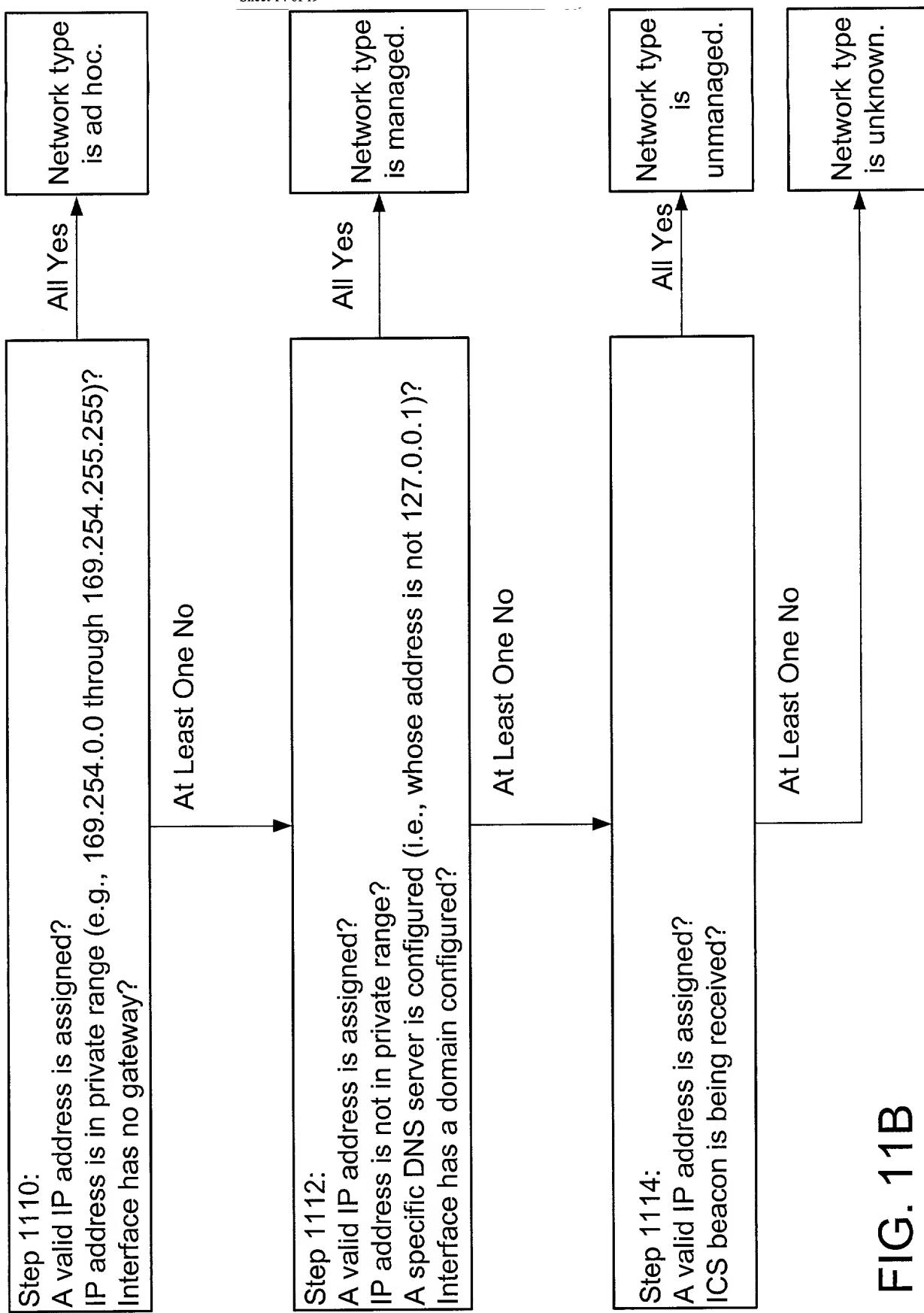


FIG. 11B

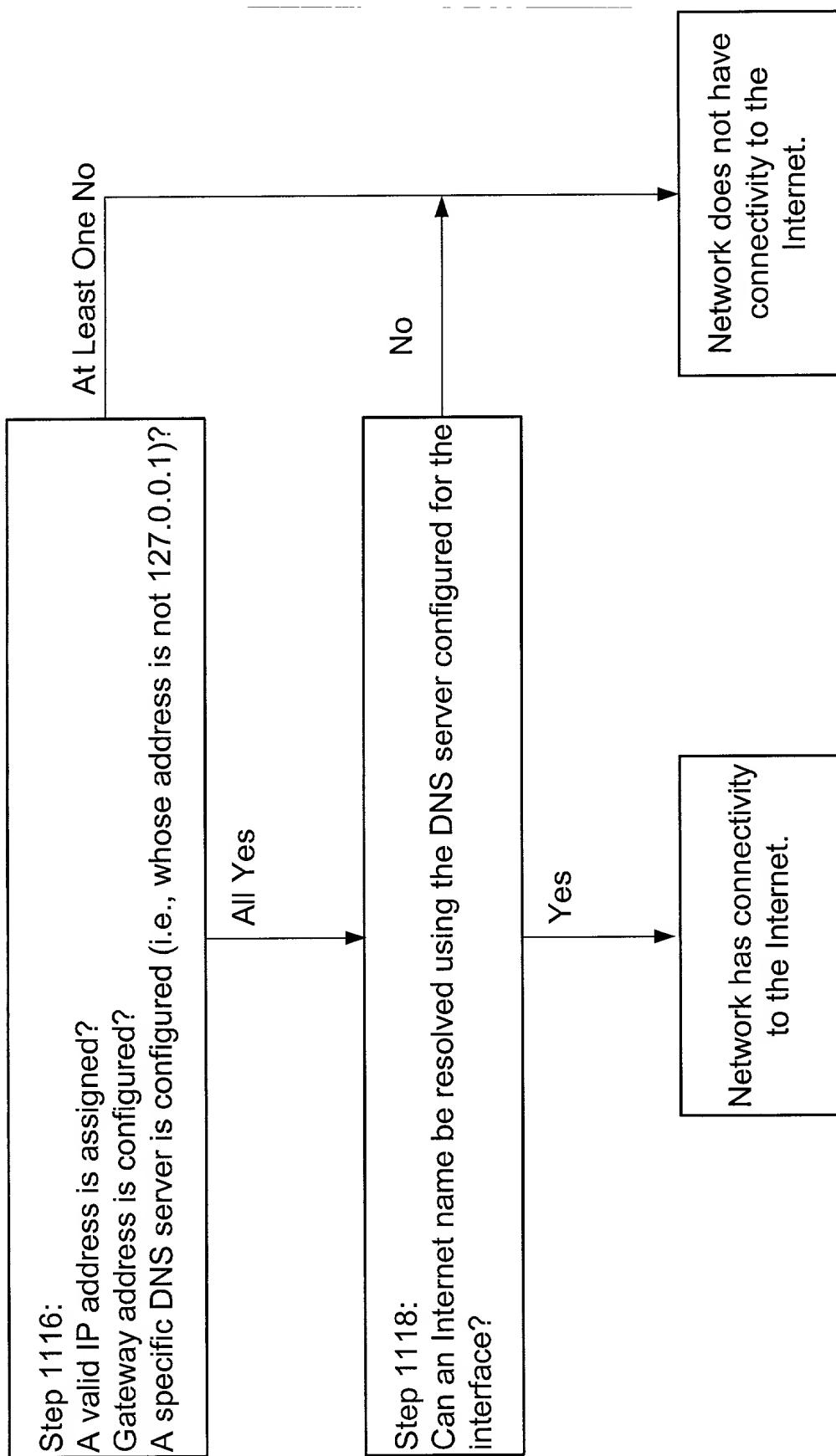


FIG. 11C

Network	Network Connectivity Type	Internet Connectivity Available?
1100	Ad Hoc	No
1102	Managed	Yes
1104	Unmanaged	Yes
1106	Unknown	Yes

FIG. 11D

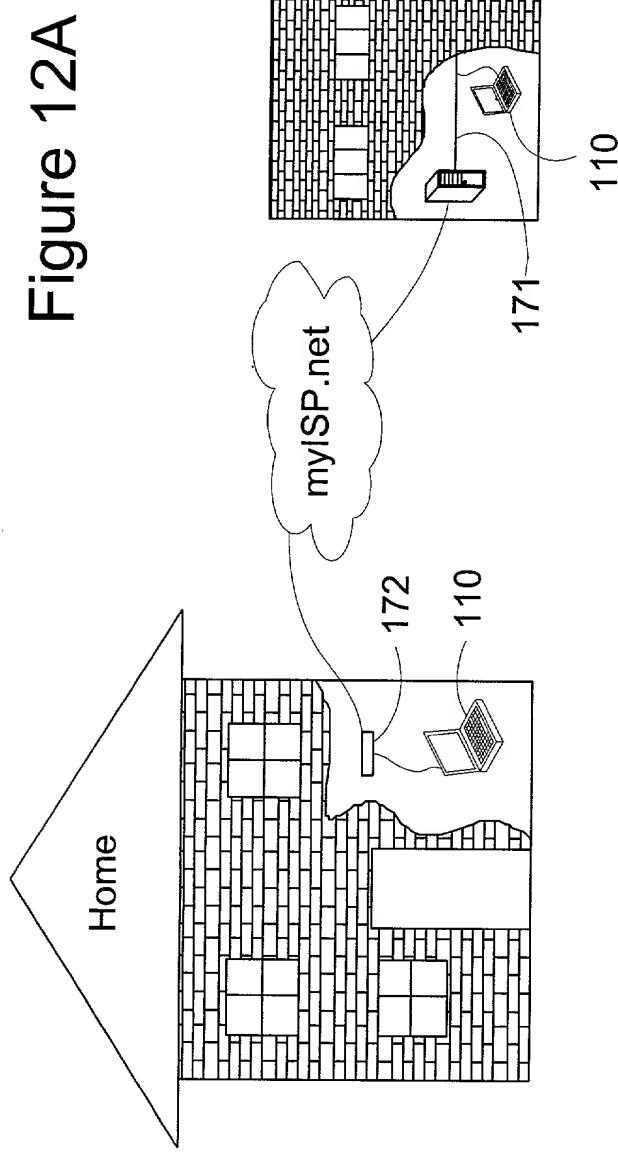


Figure 12A

Figure 12B

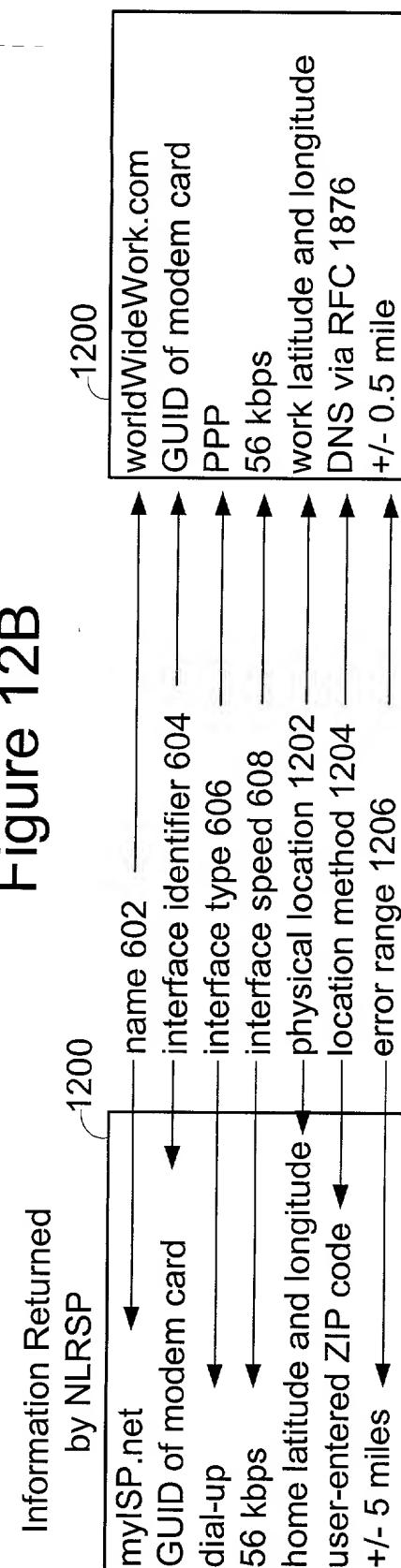


Figure 13A

On system startup:

Create a list of live network interfaces.

For each live network interface:

{

Refer to a table that lists the physical location methods applicable to this type of network interface.

For each applicable method:

{

Run the method and collect whatever information it generates.

Convert the collected information to a standard format.

Store the collected information, along with an indication of the method used to collect this information, in a record associated with this network interface.

}

}

Figure 13B

When asked for physical location information about a network interface:

Report the information previously collected on this interface. If information was collected from multiple methods, sort the results in order of increasing error range, if known.

Record what information was reported to whom.

Figure 13C

When an application specifies how information should be reported to it:

Record the information fields in which the application is interested.

Record the threshold value specified for each information field.

Figure 13D

When an event occurs on a network interface:

If the network event could change or supplement stored information:
{

Discard previously collected physical location information.

Refer to a table that lists the physical location methods applicable to this type of network interface.

For each applicable method:

{

Run the method and collect whatever information it generates.

Convert the collected information to a standard format.

Store the collected information, along with an indication of the method used to collect this information, in a record associated with this network interface.

}

Check the records of what information has been reported to whom.

If reported information has changed or was supplemented, and if the application is interested in being informed of changes in the reported information, and if the change is of a magnitude greater than the threshold set by the application, then:

{

Report the changed or supplemented information to the application.

Record what information was reported to whom.

}

}